

Officials provide additional information about employee exposure

Idaho National Laboratory officials provided additional information about Tuesday's employee radiological exposure during a news conference today. They explained how routine work to examine and package legacy nuclear fuel plates for shipment resulted in an unexpected release of radioactive material, which was safely contained within the facility but may have exposed employees.

They clarified that 16 employees who were working in the area at the time were immediately evaluated to determine whether they had been exposed. Seven employees showed external skin contamination and were immediately decontaminated; six of them had positive nasal swipes.

Based on results of the initial lung scans, three employees received follow-up lung scans. One of them had anomalous results in the first scan that needed checking. Scans for the two other employees revealed presence of Americium-241, an isotope that indicates that the employees may have inhaled plutonium. A second test Wednesday did not find Am-241 in one of the employees.

All 16 employees were offered precautionary treatment for internal radiation exposure — four of them accepted the treatment. INL health professionals will continue to monitor all 16 employees through the use of bioassays to determine the extent of individual doses. The results of this monitoring won't be known for several weeks.

In summary:

- 16 employees working in the area were potentially exposed and evaluated.
- 7 employees received external skin exposures and were decontaminated.
- 16 employees received lung scans and were offered precautionary treatment for internal exposure.
- 4 employees accepted treatment for internal exposure.
- 3 employees received follow-up lung scans based on initial scan results.
- 16 employees are receiving continued monitoring to determine individual doses.



Clamshell fuel storage container similar to the one involved in Tuesday's exposure incident.

Officials at the news conference incorrectly stated that the nuclear fuel that led to the exposure was heading to a Nevada facility. However, INL can confirm that the nuclear fuel plate was being prepared for potential shipment to another Department of Energy facility.

They also confirmed that the nuclear fuel plate had been used to support civilian nuclear energy research at the Zero Power Physics Reactor (ZPPR). The ZPPR supported fast reactor core design research before it was decommissioned in 1992.

Officials who spoke to media at today's news conference included:

- Ethan Huffman, INL Emergency Public Information Director
- Richard Provencher, Department of Energy Idaho Operations Office Manager
- David Hill, INL Deputy Director of Science & Technology
- Philip Breidenbach, INL Materials & Fuels Complex Nuclear Operations Director
- Stephen Dunn, INL Director of Nuclear Support Programs & Projects
- Sharon Dossett, INL Environment, Safety and Health Director

Photographs of the container that was used to store the fuel plate have been posted to the "INL Emergency Information" section of INL's website.

Please note that INL is the official source for event information. Any information from other sources may be incomplete or inaccurate.

INL's emergency Joint Information Center will remain active until 5 p.m. to respond to any questions you may have about this incident. Until this time, media and members of the public should call the phone numbers below. Media calls after this time should be directed to Ethan Huffman (ethan.huffman@inl.gov) at 208-716-4594 or Misty Benjamin (misty.benjamin@inl.gov) at 208-351-9900.

Media Information: (208) 526-9206 Please do not call other INL contacts.

Public Information: (208) 526-5042

Follow-up news releases will be posted on INL's website at: <http://www.inl.gov/>

— END —

Officials have concluded the emergency response to Tuesday's radiation exposure event, but medical evaluation of exposed workers and investigation into the incident continue.

Initial body scans on 16 employees potentially exposed to radioactive materials were completed Tuesday night (initial reports inaccurately stated 17 employees were potentially exposed). The employees were offered precautionary treatment for internal radiation exposure and went home after initial scans were complete.

Today, doctors at Idaho National Laboratory's Central Facilities Area are performing follow-up lung scans on three employees. All 16 exposed employees are receiving more detailed monitoring to determine whether they received internal exposure. These assessments rely upon biological samples that take days to collect and analyze, so it may be several weeks until monitoring determines the extent of individual doses.

INL has suspended work associated with transuranic materials handled outside of gloveboxes or hot cells at the Materials and Fuels Complex. Such work will resume after procedures have been evaluated and verified to be adequate. Additional long-term corrective actions will be established after officials conclude investigations to understand the cause of the incident.

The affected area at the Zero Power Physics Reactor has been isolated. A recovery plan will assess the level of contamination and determine a path forward to decontaminate the affected areas. External monitoring showed there was no release to the environment and the public was never in danger.

INL officials will be available Wednesday to answer media questions.

What: INL media availability

When: noon, Wednesday, Nov. 9

Where: Engineering Research Office Building, 2525 N. Fremont, Idaho Falls

Call-in number: 208-526-0025 or 800-414-2147

Please note that INL is the official source for event information. Any information from other sources may be incomplete or inaccurate.

INL's emergency Joint Information Center has been activated to respond to any questions you may have about this incident. Media and members of the public should call the phone numbers below, not your regular INL contacts.

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— END —

INL News Release

Date: Nov. 8, 2011

Time: 6:25 p.m.

#4

INL radiation exposure incident: Health impacts, treatment plan detailed

The emergency response to this radiological exposure incident has been completed. Medical treatment of the affected employees continues.

Here is the latest information:

New information:

- Health impacts of inhaling and/or ingesting plutonium vary depending on the elemental type (isotope) and whether the contaminant becomes trapped in the body.
- If the plutonium goes in and out of the body within a short period of time, it is unlikely to cause harm. If it is trapped — for example in the lungs — it has the potential to lead to damage to the body's cells.
- For this event, it has been determined by multiple medical and scientific experts that the best course of action is to offer the potentially exposed employees treatments that will expedite the elimination of the substances from the body to limit potential harm.
- The employees will be offered treatment with intravenous fluids with calcium or zinc to bind the plutonium for elimination (chelation) from the body.
- They will also be offered antacids to elevate the pH in the body to assist in the elimination process.
- A determination on the amount of the exposure will not be available until the body scans are complete. It may be weeks until the extent of the exposure is known.
- The Emergency Operations Center and the Joint Information Center will be standing down at 10:30 p.m. Media calls after this time should be directed to Ethan Huffman at 208-716-4594 or ethan.huffman@inl.gov or Misty Benjamin at 208-351-9900 or misty.benjamin@inl.gov.

Background:

- The Zero Power Physics Reactor (ZPPR) was a low-power reactor used to mock up cores for experimental purposes.

- It was decommissioned in 1992.
- The facility is one of the many nuclear material storage locations on the site.
- Workers occasionally enter the facility to inventory special nuclear materials or to prepare them for transfer to other DOE facilities.
- The Materials and Fuels Complex is located 38 miles from Idaho Falls and conducts nuclear fuels research. Approximately 800 employees work at the facility.

Information previously reported:

- A total of 17 employees were potentially exposed contamination.
 - Of the potentially exposed employees, six have tested positive contamination based on external surveying.
 - All 17 employees are currently undergoing full body scans at the Central Facilities Area Medical Facility which can take up to an hour per person.
 - External air sampling and radiological surveys indicate no contamination has been detected outside of the Zero Power Physics Reactor facility.
- Contrary to some media reports, there is no leak of contamination outside the facility.
- All of those affected were employees of Battelle Energy Alliance (BEA).
 - State, county and tribal officials have been notified.
 - At approximately 1 p.m. today, employees were conducting work inside the decommissioned Zero Power Physics Reactor (ZPPR) when a container was opened for normal scheduled work resulting in worker exposure to plutonium.
 - 17 employees at the Materials and Fuels Complex have been transported to the Central Facilities Medical Center on the INL site for further evaluation.
 - The employees underwent initial decontamination at MFC.
 - There is no evidence of release of contamination outside the facility.
 - There is no risk to the public or environment.

Please note that INL is the official source for event information. Any information from other sources may be incomplete or inaccurate.

Follow-up news releases will be posted on INL's website at: <http://www.inl.gov/>

— END —

INL News Release

Date: Nov. 8, 2011

Time: 5:20 p.m.

#3

INL employees receive radiological exposure at Materials and Fuels Complex; no risk to the public

Emergency personnel continue to respond to a radiological exposure incident on the INL site.

Here is the latest information:

New information:

- A total of 17 employees were potentially exposed to low-levels of contamination.
 - Of the potentially exposed employees, six have tested positive for low-levels of contamination based on external surveying.
 - All 17 employees are currently undergoing full body scans at the Central Facilities Area Medical Facility which can take up to an hour per person.
 - External air sampling and radiological surveys indicate no contamination has been detected outside of the Zero Power Physics Reactor facility.
- Contrary to some media reports, there is no leak of contamination outside the facility.
- All of those affected were employees of Battelle Energy Alliance (BEA).
 - A thorough investigation of the event is under way.

Background:

- The Zero Power Physics Reactor (ZPPR) was a low-power reactor used to mock up cores for experimental purposes.
- It was decommissioned in 1992.
- The facility is one of the many nuclear material storage locations on the site.
- Workers occasionally enter the facility to inventory special nuclear materials or to prepare them for transfer to other DOE facilities.
- The Materials and Fuels Complex is located 38 miles from Idaho Falls and conducts nuclear fuels research. Approximately 800 employees work at the facility.

Information previously reported:

- INL emergency responders are responding to the incident.
- State, county and tribal officials have been notified.
- At approximately 1 p.m. today, employees were conducting work inside the decommissioned Zero Power Physics Reactor (ZPPR) when a container was opened for normal scheduled work resulting in low-level worker exposure to plutonium.
- 17 employees at the Materials and Fuels Complex have been transported to the Central Facilities Medical Center on the INL site for further evaluation.
- The employees underwent initial decontamination at MFC.
- There is no evidence of release of contamination outside the facility.

- There is no risk to the public or environment.

Please note that INL is the official source for event information. Any information from other sources may be incomplete or inaccurate.

INL's emergency Joint Information Center at the Engineering Research Office Building, 2525 Fremont Ave., Idaho Falls, has been activated to respond to any questions you may have about this incident. Media and members of the public should call the phone numbers below, not your regular INL contacts.

Media Information: (208) 526-9206 Please do not call other INL contacts.

Public Information: (208) 526-5042

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INL News Release

Date: Nov. 8, 2011

Time: 3:10 p.m.

#2

INL employees receive radiological exposure at Materials and Fuels Complex

At approximately 1 p.m. today, Idaho National Laboratory emergency personnel began responding to a radiological contamination event involving at least 17 employees at the Materials and Fuels Complex (MFC) on the INL Site.

The employees were conducting work inside the decommissioned Zero Power Physics Reactor (ZPPR) when a container was opened for normal scheduled work resulting in low-level worker exposure to plutonium.

All 17 employees have been transported to the Central Facilities Medical Center on the INL site for further evaluation. The employees underwent initial decontamination at MFC.

There is no evidence of a release of contamination outside the facility. There is no risk to the public or environment.

Please note that INL is the official source for event information. Any information from other sources may be incomplete or inaccurate.

INL's emergency Joint Information Center at the Engineering Research Office Building, 2525 Fremont Ave., Idaho Falls, has been activated to respond to any questions you may have about this incident. Media and members of the public should call the phone numbers below, not your regular INL contacts.

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INL News Release

Date: Tuesday, Nov. 8, 2011

Time: 2:40

#1

Department of Energy's Emergency Operations Center is gathering information about a reported incident at the Idaho Site

The U.S. Department of Energy's (DOE) Idaho National Laboratory (INL) Emergency Operations Center (EOC) has been activated and is gathering information about a reported radiological exposure incident at the Materials and Fuels Complex on the INL site.

When events such as this are reported, DOE activates its EOC as a standard practice to gather information and coordinate site-wide incident responders, as needed. This news release is being issued to alert you of the reported incident and the EOC activation. Based on the information obtained so far, there is no risk to the public.

INL personnel are responding to investigate the incident; and state, county and tribal officials are being notified. News release updates will be issued when more information is available. Additional details on the nature of the incident and a preliminary impact assessment will be provided to the media and the public as soon as they are available and confirmed.

Please note that information about this event reported by unofficial sources may be incomplete or inaccurate.

INL's emergency Joint Information Center at the Engineering Research Office Building, 2525 Fremont Ave., Idaho Falls, has been activated to respond to any questions you may have about this incident. Media and members of the public should call the phone numbers below, not your regular INL contacts.

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